

## **Department of Community Development – Design Specifications**

When these requirements are identified in grant or forgivable loan contracts or other binding agreements, new construction using resources administered by the City of Durham's Department of Community Development must comply with the minimum standards listed below:

For new construction in progress or assisted by the department where these requirements were not specifically incorporated into contracts or other binding agreements, these requirements are guidelines to which developers are strongly encouraged to comply:

Units should incorporate the following universal design principles:

- a. On the first floor, finished opening of interior doors to at least one bathroom and all common rooms (kitchens, dining room, living room) should be no less than 32 inches wide to facilitate wheelchair access.
- b. Finished opening of exterior doors should be no less than 34 inches.
- c. Hallways must be a minimum 36 inches to allow clearance of persons using wheelchairs.
- d. Wall switches should be no more than 48 inches above floor level.
- e. Electrical outlets should be located no less than 18 inches above floor level.
- f. Plywood or beveled blocking should be installed on interior walls behind bathtubs to facilitate future installation of grab bars.
- g. Faucets should have lever type handles.

Units should incorporate the following minimum construction standards:

- a. If lot conditions or house plans necessitate additional reinforcement, install #4 rebar in foundation footings to increase the structural support of the building.
- b. Foundation shall be of crawlspace construction with a minimum of 18 inches clearance in the crawlspace. Construction of elevated slabs with a minimum 12 inches clearance is also acceptable. Where lot elevation or size does not reasonably allow for an elevated slab and a stepless entrance, developers may choose between elevated construction and a stepless entrance.
- c. Whether crawlspace construction or elevated slab, efforts will be taken to ensure architectural continuity in neighborhood. Acceptable methods include:
  - 1. Brick veneer exteriors.
  - 2. Texturing and parging concrete surfaces
  - 3. Other treatments that are consistent with existing neighborhood character.

- d. Moisture levels in crawlspaces, at basements, and under slabs shall be minimized through foundation waterproofing, the effective placement of subsurface drainage systems, gutters and downspouts, and/or grading to direct drainage away from the foundation.
- e. Exterior materials should be selected so as to minimize deterioration and maintenance costs. (e.g. brick veneer, hardi-plank and or high quality vinyl siding and trim).
- f. Minimum roof pitch of all roofs facing the street to be 4/12 and roof shingle to have a minimum 25 year warranty.
- g. There should be a total of forty square feet of covered outdoor space suitable for sitting. Unless a lot requires otherwise, this space should be in a front porch area. If the lot does not reasonably allow this space to exist on a front porch, space may be concentrated in a back or side porch or patio area suitable for sitting. Patios are the least preferred alternative, and need not be covered. This requirement cannot be met by aggregating small patches of seating areas (whether covered or not).
- h. Do not use earth filled porches unless the earth is at least eight inches below untreated wood.
- i. To the extent that the lot allows, all exterior doors should be covered and have a landing sufficiently large to allow the door to be opened and closed comfortably while standing on landing.
- j. All units should be pre-wired for telephone, cable, security (to include at least one outside motion-activated light) and internet access.
- k. All units are to be certified as Energy Star Homes. The subrecipient must construct all homes using HUD's Energy Star Standards to lower utility bills, improve comfort, increase project value, reduce air pollution and improve the environment. The subrecipient must ensure that all units are inspected by an independent Energy Star HOME rater as each unit is completed as part of the certification process.
- l. All units with any combustion appliances (HVAC, water heater, space heater, fireplace, etc.) or attached garages should be equipped with at least one a.c. powered carbon monoxide detector.
- m. Materials should be selected as to minimize levels of volatile organic chemicals in interior living space.

## Interior Value Features

- a. The interior design should allow for good traffic flow from room to room.
- b. Hallways should be kept to a minimum.
- c. The smallest bedroom should be at least 10' x 10'.
- d. There should be sufficient space for dining room and chairs.
- e. Bathrooms and bedrooms should be located in close proximity.
- f. Inside closet space should be maximized.
- g. Space should be provided with all necessary hookups for clothes washers and dryers.
- h. Dryer vents should include a backdraft damper and be extended with metal duct to the exterior of the building.
- i. A minimum of twelve linear feet of solid wood faced base cabinets and twelve linear feet of solid wood faced wall cabinets should be installed in kitchens when architectural plans allow.
- j. All hot water supply lines in unheated spaces should be insulated with ½" (minimum) preformed foam insulation or equivalent insulation material labeled for use on pipes.

## Exterior Value Feature

- a. Adequate storage space with outside access should be provided for grounds care and maintenance tools and equipment, unless outdoor storage space is needed for installation of a hot water heater or other needed equipment.
- b. Utilities should be underground, where reasonably possible.
- c. Paved, off-street parking adequate for two vehicles should be provided.
- d. In developments, exterior design should be varied, unit by unit to provide for a varied landscape.
- e. For in-fill housing units, the exterior design should mirror the existing housing and the existing parking patterns as closely as possible.

Plans and elevations submitted with CDBG/HOME or other funding applications are deemed to comply with these minimum standards unless award letter notes changes required.

These requirements are intended to improve the architectural continuity of targeted neighborhoods, as well as the sustainability, energy efficiency, accessibility and visitability of individual units.

Where specific situations warrant, requirements may be waived on a case-by-case basis at the discretion of the Department of Community Development. For example, lot elevations may limit the extent to which a unit may be visitable.

Although these requirements do not apply to rehabs, it is the Department's intention that rehabs incorporate as many of the features listed above as is practical and that they incorporate energy efficiency and green building to the greatest extent feasible. Attention is drawn to <http://www.huduser.org/Publications/PDF/remodel.pdf>.

The requirements do not lessen developers' obligations to comply with any other applicable requirements. Indeed, in most cases, separate HUD, NCHFA and municipal requirements will apply.

### **Green Building Standards**

All newly constructed units must achieve certification through one of the following two programs:

#### **Energy Star Qualified New Homes Program**

<http://www.energystar.gov/>

- Program is designed primarily for energy conservation through effective insulation, high performance windows, tight construction, efficient HVAC systems and efficient products and appliances.
- The City must receive verification from a Home Energy Rater (HERS rater) that each building has passed relevant inspections of the Energy Star Qualified Homes program.

#### **SystemVision by Advanced Energy**

<http://www.advancedenergy.org/buildings/>

- Primarily a single family residential certification program.
- Builders and subcontractors must attend a one-day training class.
- Advanced Energy inspects construction at several stages.
- Heating and cooling energy use guarantee is provided to owner.
- Copy of heating and cooling guarantee must be presented to the City.

**Other Green Building Certification Programs** – Developers may propose an alternate certification program for consideration by the City, if the following criteria are met:

- Must include basic energy conservation elements of the Energy Star Qualified New Homes Program.
- Third-party verification must be included (self-verification programs not allowed).

All projects must provide construction and demolition debris recycling containers for the separation of recyclable materials from non-recyclable trash.

All projects must employ a water conservation strategy including the following features:

- Dual flush toilets
- Low flow shower heads and faucets
- Water-wise plantings

Five additional bonus points will be awarded to projects that commit to the Green Building Certification programs (NC Healthy Homes or HBA-DOC Green Building Initiative).